

(1) The probable hydrologic consequences of the operation upon the quality and quantity of surface and ground water in the permit and adjacent areas, including the extent to which surface- and ground-water monitoring is necessary;

(2) All potentially acid- or toxic-forming strata down to and including the stratum immediately below the lowest coal seam to be mined; and

(3) Whether reclamation as required by this chapter can be accomplished and whether the proposed operation has been designed to prevent material damage to the hydrologic balance outside the permit area.

(b) Geologic information shall include, at a minimum the following:

(1) A description of the geology of the proposed permit and adjacent areas down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest coal seam to be mined which may be adversely impacted by mining. The description shall include the areal and structural geology of the permit and adjacent areas, and other parameters which influence the required reclamation and the occurrence, availability, movement, quantity, and quality of potentially impacted surface and ground waters. It shall be based on—

(i) The cross sections, maps and plans required by § 779.25 of this chapter;

(ii) The information obtained under paragraphs (b)(2) and (c) of this section; and

(iii) Geologic literature and practices.

(2) Analyses of samples collected from test borings; drill cores; or fresh, unweathered, uncontaminated samples from rock outcrops from the permit area, down to and including the deeper of either the stratum immediately below the lowest coal seam to be mined or any aquifer below the lowest seam to be mined which may be adversely impacted by mining. The analyses shall result in the following:

(i) Logs showing the lithologic characteristics including physical properties and thickness of each stratum and location of ground water where occurring;

(ii) Chemical analyses identifying those strata that may contain acid- or toxic-forming or alkalinity-producing materials and to determine their content except that the regulatory authority may find that the analysis for alkalinity-producing materials is unnecessary; and

(iii) Chemical analyses of the coal seam for acid- or toxic-forming materials, including the total sulfur and pyritic sulfur, except that the regulatory authority may find that the analysis of pyritic sulfur content is unnecessary.

(c) If determined to be necessary to protect the hydrologic balance or to meet the performance standards of this chapter, the regulatory authority may require the collection, analysis, and description of geologic information in addition to that required by paragraph (b) of this section.

(d) An applicant may request the regulatory authority to waive in whole or in part the requirements of paragraph (b)(2) of this section. The waiver may be granted only if the regulatory authority finds in writing that the collection and analysis of such data is unnecessary because other equivalent information is available to the regulatory authority in a satisfactory form.

[48 FR 43987, Sept. 26, 1983]

§ 780.23 Reclamation plan: Land use information.

(a) The plan shall contain a statement of the condition, capability, and productivity of the land within the proposed permit area, including:

(1) A map and supporting narrative of the uses of the land existing at the time of the filing of the application. If the premining use of the land was changed within 5 years before the anticipated date of beginning the proposed operations, the historic use of the land shall also be described. In the case of previously mined land, the use of the land prior to any mining shall also be described to the extent such information is available.

(2) A narrative of land capability and productivity, which analyzes the land-use description under paragraph (a) of this section in conjunction with other environmental resources information. The narrative shall provide analyses of:

(i) The capability of the land before any mining to support a variety of uses, giving consideration to soil and foundation characteristics, topography, vegetative cover, and the hydrology of the proposed permit area; and

(ii) The productivity of the proposed permit area before mining, expressed as average yield of food, fiber, forage, or wood products from such lands obtained under high levels of management. The productivity shall be determined by yield data or estimates for similar sites based on current data from the U.S. Department of Agriculture, State agricultural universities, or appropriate State natural resource or agricultural agencies.

(b) Each plan shall contain a detailed description of the proposed use, following reclamation, of the land within the proposed permit area, including a discussion of the utility and capacity of the reclaimed land to support a variety of alternative uses, and the relationship of the proposed use of existing land use policies and plans. This description shall explain:

(1) How the proposed post mining land use is to be achieved and the necessary support activities which may be needed to achieve the proposed land use; and

(2) Where a land use different from the premining land use is proposed, all materials needed for approval of the alternative use under 30 CFR 816.133.

(3) The consideration which has been given to making all of the proposed surface mining activities consistent with surface owner plans and applicable State and local land use plans and programs.

(c) The description shall be accompanied by a copy of the comments concerning the proposed use by the legal or equitable owner of record of the surface of the proposed permit area and the State and local government agencies which would have to initiate, implement, approve, or authorize the proposed use of the land following reclamation.

[59 FR 27937, May 27, 1994]

§ 780.25 Reclamation plan: Siltation structures, impoundments, banks, dams, and embankments.

(a) *General.* Each application shall include a general plan and a detailed design plan for each proposed siltation structure, water impoundment, and coal processing waste bank, dam, or embankment within the proposed permit area.

(1) Each general plan shall—

(i) Be prepared by, or under the direction of, and certified by a qualified, registered, professional engineer, a professional geologist, or in any State which authorizes land surveyors to prepare and certify such plans, a qualified, registered, professional, land surveyor, with assistance from experts in related fields such as landscape architecture;

(ii) Contain a description, map, and cross section of the structure and its location;

(iii) Contain preliminary hydrologic and geologic information required to assess the hydrologic impact of the structure;

(iv) Contain a survey describing the potential effect on the structure from subsidence of the subsurface strata resulting from past underground mining operations if underground mining has occurred; and

(v) Contain a certification statement which includes a schedule setting forth the dates that any detailed design plans for structures that are not submitted with the general plan will be submitted to the regulatory authority. The regulatory authority shall have approved, in writing, the detailed design plan for a structure before construction of the structure begins.

(2) Impoundments meeting the Class B or C criteria for dams in the U.S. Department of Agriculture, Soil Conservation Service Technical Release No. 60 (210-VI-TR60, Oct. 1985), "Earth Dams and Reservoirs," Technical Release No. 60 (TR-60) shall comply with the requirements of this section for structures that meet or exceed the size of other criteria of the Mine Safety and Health Administration (MSHA). The technical release is hereby incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR